

CLAIM LISTING:

1-33. (Canceled)

34. (Currently amended) A method of producing a microparticle composition, said method comprising:

(a) forming an emulsion comprising (i) a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate, (ii) an organic solvent, (iii) a detergent and (iv) water;

(b) removing the organic solvent from the emulsion to form ~~microparticles~~ a microparticle suspension;

(c) wherein said ~~microparticles are microparticle suspension~~ is subjected to a filtration step to remove excess detergent such that about 10-90% of the total detergent in the resulting microparticle composition-suspension is bound to the microparticles and the remainder is unbound, or wherein said ~~microparticles are microparticle suspension~~ is not subjected to a ~~washing step to remove excess detergent~~ and the ratio of the detergent to the polymer used is such that about 10-90% of the total detergent in the microparticle ~~composition-suspension~~ is bound to the microparticles and the remainder is unbound; and

(d) mixing (e) adsorbing a biologically active macromolecule with to said microparticles in said microparticle composition-suspension in which about 10-90% of the total detergent in the microparticle suspension composition is bound to the microparticles and the remainder is unbound such that said biologically active macromolecule is adsorbed to microparticles in said suspension.

35. (Previously presented) The method of claim 34, wherein the emulsion is a water-in-oil-in-water emulsion that is formed by a process comprising:

(a) emulsifying an organic phase comprising the polymer and the organic solvent with a first aqueous phase comprising water to form a water-in-oil emulsion; and

(b) emulsifying a second aqueous phase comprising the detergent and water with the emulsion formed in step (a) to form a water-in-oil-in-water emulsion.

36. (Currently amended) The method of claim 34, wherein said microparticle suspension is subjected to a cross-flow filtration step is performed after removing the organic solvent.

37. (Currently amended) A method of producing a microparticle composition, said method comprising:

(a) forming an emulsion comprising (i) a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate, (ii) an organic solvent, (iii) a cationic detergent and (iv) water, wherein the cationic detergent is provided in the emulsion at a weight to weight detergent to polymer ratio of from about 0.05:1 to about 0.5:1;

(b) removing the organic solvent from the emulsion to form ~~microparticles~~ a microparticle suspension;

~~(c) wherein said microparticles are subjected~~ subjecting said microparticle suspension to a filtration step to remove excess detergent such that about 10-90% of the total detergent in the resulting microparticle composition suspension is bound to the microparticles and the remainder is unbound; and

(d) mixing (e) adsorbing a biologically active macromolecule with to said microparticles in said microparticle suspension composition in which about 10-90% of the total detergent in the filtered microparticle suspension composition is bound to the microparticles and the remainder is unbound, such that said biologically active macromolecule is adsorbed to microparticles in said suspension.

38. (Previously presented) The method of claim 37, wherein the cationic detergent is provided in the emulsion at a weight to weight detergent to polymer ratio of from about 0.1:1 to about 0.5:1, wherein the polymer is poly(D,L-lactide-co-glycolide), and wherein the cationic detergent is cetyl trimethyl ammonium bromide (CTAB).

39. (Currently amended) A method of producing a microparticle composition, said method comprising:

(a) forming an emulsion comprising (i) a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a

polyanhydride, and a polycyanoacrylate, (ii) an organic solvent, (iii) a cationic detergent and (iv) water, wherein the cationic detergent is provided in the emulsion at a weight to weight detergent to polymer ratio of from about 0.001:1 to about 0.05:1;

(b) removing the organic solvent from the emulsion to form ~~microparticles~~ a microparticle suspension;

(c) wherein said ~~microparticles are~~ microparticle suspension is not subjected to a washing step to remove excess detergent and the ratio of the detergent to the polymer used is such that about 10-90% of the total detergent in the microparticle ~~composition~~ suspension is bound to the microparticles and the remainder is unbound; and

(d) ~~mixing (e) adsorbing~~ a biologically active macromolecule with ~~to said microparticles in~~ said microparticle ~~composition~~ suspension in which about 10-90% of the total detergent in the microparticle ~~composition~~ suspension is bound to the microparticles and the remainder is unbound, such that said biologically active macromolecule is adsorbed to microparticles in said suspension.

40. (Currently amended) The method of claim 39, wherein the cationic detergent is provided in the emulsion at a weight to weight detergent to polymer ratio of from about 0.002:1 to about 0.04:1, wherein the cationic detergent is cetyl trimethyl ammonium bromide (CTAB), and wherein the polymer is poly(D,L-lactide-co-glycolide), and ~~wherein the microparticles are not subjected to a step to remove excess CTAB from the composition.~~

41. (Original) The method of claim 34, wherein the polymer is a poly(D,L-lactide-co-glycolide) having a lactide/glycolide molar ratio ranging from 40:60 to 60:40 and a molecular weight ranging from 30,000 Daltons to 70,000 Daltons.

42. (Original) A microparticle composition formed by the process of claim 34.

43-61. (Canceled)

62. (Currently amended) The method of claim 34, wherein about 10-60% of the total detergent in the microparticle-~~composition~~ suspension is bound to the microparticles and the remainder is unbound.

63. (Currently amended) The method of claim 34, wherein about 25-40% of the total detergent in the microparticle-~~composition~~ suspension is bound to the microparticles and the remainder is unbound.

64. (Currently amended) The method of claim 37, wherein about 10-60% of the total detergent in the microparticle-~~composition~~ suspension is bound to the microparticles and the remainder is unbound.

65. (Currently amended) The method of claim 37, wherein about 25-40% of the total detergent in the microparticle-~~composition~~ suspension is bound to the microparticles and the remainder is unbound.

66. (Currently amended) The method of claim 39, wherein about 10-60% of the total detergent in the microparticle-~~composition~~ suspension is bound to the microparticles and the remainder is unbound.

67. (Currently amended) The method of claim 39, wherein about 25-40% of the total detergent in the microparticle-~~composition~~ suspension is bound to the microparticles and the remainder is unbound.

68. (Currently amended) The method of claim 39, wherein said ~~microparticles are~~
microparticle suspension is not subjected to a step to remove excess cationic detergent.

69. (Currently amended) The method of claim ~~39~~ 34, wherein said ~~microparticles are not~~
microparticle suspension is subjected to ~~a said~~ filtration step.

70. (Currently amended) The method of claim 34, wherein the microparticle suspension is
not subjected to a step to remove excess detergent. ~~microparticles are not washed by~~
~~centrifugation.~~

71. (Previously presented) The method of claim 34, wherein said detergent comprises an anionic detergent.

72. (Previously presented) The method of claim 71, wherein said biologically active macromolecule comprises a polypeptide.

73. (Previously presented) The method of claim 34, wherein said detergent comprises a cationic detergent.

74. (Previously presented) The method of claim 73, wherein said biologically active macromolecule comprises a polynucleotide.

75. (Previously presented) The method of claim 37, wherein said biologically active macromolecule comprises a polynucleotide

76. (Previously presented) The method of claim 39, wherein said biologically active macromolecule comprises a polynucleotide